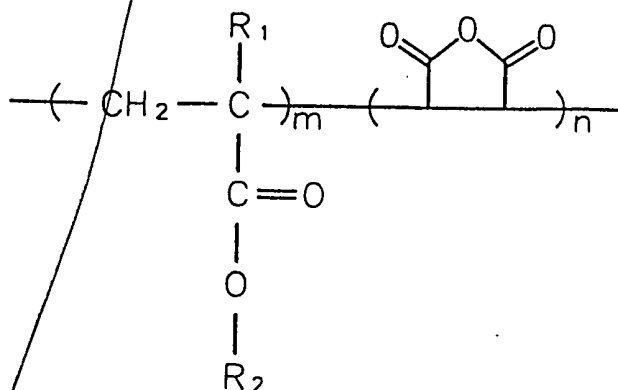


What is claimed is:

1. A photosensitive copolymer having a weight-average molecular weight of 3,000 to 100,000 and represented by the following formula:



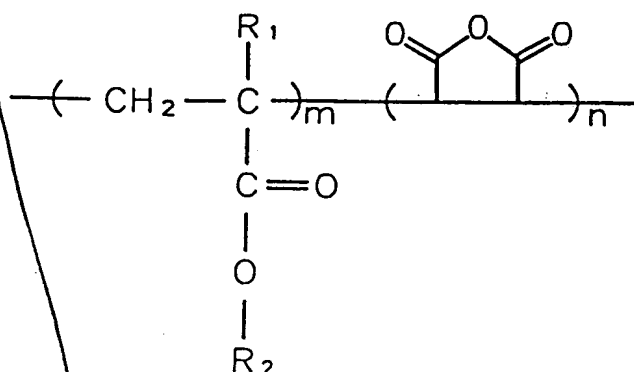
wherein R₁ is a hydrogen atom or methyl, R₂ is an acid-labile tertiary alkyl group, and m/(m+n) is 0.5 to 0.8.

2. The photosensitive copolymer according to claim 1, wherein the photosensitive polymer has a weight-average molecular weight of 5,000 to 30,000.

3. The photosensitive copolymer according to claim 1, wherein R₂ is an alicyclic hydrocarbon group.

4. The photosensitive copolymer according to claim 1, wherein R₂ is 2-methyl-2-norbornyl, 2-ethyl-2-norbornyl, 2-methyl-2-isobornyl, 2-ethyl-2-isobornyl, 8-methyl-8-tricyclo[5.2.1.0^{2,6}]decanyl, 8-ethyl-8-tricyclo[5.2.1.0^{2,6}]decanyl, 2-methyl-2-adamantyl, or 2-ethyl-2-adamantyl.

5. A resist composition comprising:
(a) a photosensitive copolymer having a weight-average molecular weight of 3,000 to 100,000 and represented by the following formula:



wherein R_1 is a hydrogen atom or methyl, R_2 is an acid-labile tertiary alkyl group, and $m/(m+n)$ is 0.5 to 0.8; and

(b) a photoacid generator (PAG).

6. The resist composition according to claim 5, wherein the photosensitive polymer has a weight-average molecular weight of 5,000 to 30,000.

7. The resist composition according to claim 5, wherein R_2 is an alicyclic hydrocarbon group.

8. The resist composition according to claim 5, wherein R_2 is 2-methyl-2-norbornyl, 2-ethyl-2-norbornyl, 2-methyl-2-isobornyl, 2-ethyl-2-isobornyl, 8-methyl-8-tricyclo[5.2.1.0^{2,6}]decanyl, 8-ethyl-8-tricyclo[5.2.1.0^{2,6}]decanyl, 2-methyl-2-adamantyl, or 2-ethyl-2-adamantyl.

9. The resist composition according to claim 5, wherein the PAG is contained in an amount of 1.0 to 15% by weight based on the total weight of the copolymer.

10. The resist composition according to claim 9, wherein the PAG is selected from the group consisting of triarylsulfonium salts, diaryliodonium salts, sulfonates or mixtures thereof.

11. The resist composition according to claim 10, wherein the PAG is triphenylsulfonium triflate, diphenyliodonium triflate, triphenylsulfonium nonaflate, diphenyliodonium nonaflate, triphenylsulfonium antimonate, diphenyliodonium antimonate, di-t-butyl diphenyliodonium triflate, N-succinimidyl triflate, 2,6-dinitrobenzyl sulfonate, or a mixture thereof.

12. The resist composition according to claim 5, further comprising an organic base.

13. The resist composition according to claim 12, wherein the organic base is contained in an amount of 0.01 to 2.0% by weight based on the total weight of the copolymer.

14. The resist composition according to claim 13, wherein the organic base is triethylamine, triisobutylamine, trioctylamine, diethanolamine, triethanolamine or a mixture thereof.

15. The resist composition according to claim 5, further comprising a surfactant.

16. The resist composition according to claim 15, wherein the surfactant is contained in an amount of 50 to 500 ppm.

17. The resist composition according to claim 15, wherein the surfactant is polyether or polysulfonate.

18. The resist composition according to claim 17, wherein the surfactant is poly(ethylene glycol).